ABSTRACT OF THE DISCLOSURE

To provide a filter cover which has little electromagnetic effect on a dielectric resonator and is able to lengthen the life of a press mold without impairing isolation between transmission and reception. A VCO comprising a dielectric resonator, a high-frequency oscillator, a base, a cover, in which the distance between the surface of the cover facing the dielectric resonator and the surface of the base facing the dielectric resonator is half or below of the effective wave length of the oscillator frequency, and the cover has periodic projections facing the dielectric resonator which are a quarter of effective wave length of the oscillator frequency, wherein the nearest distance between the surface of the dielectric resonator facing the cover and the surface of the cover facing the dielectric resonator is a quarter or over of the effective wave length of the oscillator frequency.